PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.	**10/630,094**	Confirmation No.: **8486**
Applicant(s):	**KORFER, Martin et al.**	
Filed:	**07/30/2003**	
TC/A.U.	**1616**	
Examiner:	**PRYOR, Alton Nathaniel**	
Title:	**Process for the Preparation of Alpha-Amino Acids by Hydrolysis of Hydantoins at Elevated Pressure and Elevated Temperature**	
Docket No.:	**032301.345**	
Customer No.:	**25461**	

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

LETTER TO THE EXAMINER

This patent application stands in condition for allowance. The Issue Fee is due June 23, 2004. In the Notice of Allowance mailed March 23, 2004, the Examiner has refused to consider the German Patent No. DE 19 06 405, cited in Applicants' Information Disclosure Statement filed July 30, 2003, because an English translation of the German patent was not presented. The Applicants' note that the cited German reference was discussed on page 1 of the patent specification (a copy of which is attached hereto for convenient reference).

Applicants attach hereto a copy of the Information Disclosure Statement and the Form PTO/SB/08a that were filed July 30, 2003, which were in conformance with the requirements of 37 C.F.R. §§ 1.97 and 1.98. Once the minimum requirements of 37 C.F.R. §§ 1.97 are met, the Examiner has an obligation to consider the information. See M.P.E.P 609. Accordingly, Applicants request that the Examiner initial the supplemental Form PTO/SB/08a that is being submitted herewith so that the front of the patent will indicate that the German reference was considered by the Examiner.

Respectfully submitted,

SMITH, GAMBRELL & RUSSELL, LLP

By: Robert G. Weilacher, Reg. No. 20,531

Suite 3100, Promenade II
1230 Peachtree Street, N.E.
Atlanta, Georgia 30309-3592
Telephone: (404) 815-3593
Facsimile: (404) 685-6893

PROCESS FOR THE PREPARATION OF α-AMINO ACIDS BY HYDROLYSIS OF HYDANTOINS AT ELEVATED PRESSURE AND ELEVATED TEMPERATURE

Introduction

The present invention relates to a process for the preparation of α-amino acids by hydrolysis of hydantoins in the presence of water and of at least one metallic oxide under conditions such that all the starting materials are completely dissolved in the water as a result of high pressure and high temperature and only one further phase is present in the reactor in addition to the solid phase of the metallic oxide.

Background Prior Art

It is known from US 2,557,920 that α-amino acids are formed by saponification of hydantoins using sodium hydroxide. However, such processes require at least 3 moles of sodium hydroxide per mole of hydantoin. The same is true when potassium hydroxide is used.

DE 19 06 405 describes the hydrolysis of 5-(2-methylmercaptoethyl)-hydantoin using an aqueous solution of alkali carbonate and/or alkali hydrogen carbonate. During the hydrolysis, ammonia and carbon dioxide are constantly removed. Of the alkali carbonates, potassium carbonate is preferred; a molar ratio of hydantoin to alkali of from 1:1 to 1:5 is used. The hydrolysis is carried out under pressure at from 120 to 220°C. The alkali methioninate solution is used to liberate D,L-methionine with carbon dioxide; the mother liquor from the separation of the methionine that has crystallized out is used again in the circuit for the hydantoin hydrolysis, optionally with the discharge of from 1 to 2 %.

Processes for the preparation of α-amino acids from hydantoins without the simultaneous production of salts are described in JP 03-95145A and in JP 03-